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| 10/674,153 | 09/29/2003 | Kuo-Huang Hsieh | MR3457-44 | 1903 |

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ROSENBERG, KLEIN & LEE
3458 ELLICOTT CENTER DRIVE-SUITE 101
ELLICOTT CITY, MD 21043

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| EXAMINER |
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LIN, JAMES

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| ART UNIT | PAPER NUMBER |
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1762

DATE MAILED: 11/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|-------------------------------------|--|
| Office Action Summary | Application No. 10/674,153 | Applicant(s) HSIEH ET AL. | |
| | Examiner Jimmy Lin | Art Unit 1762 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 2-7, 9, 11 and 14-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 8, 10, 12 and 13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Oath/Declaration

1. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

The date indicating the signature of Pe-Zen Chang has been crossed out.

Election/Restrictions

2. Applicant's election of Group I, claims 1-13, 25, 27-28, and 31 in the reply filed on 10/11/2006 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

3. Claims 2-7, 9, 11, and 14-32 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 10/11/2006.

Drawings

4. The drawings are objected to because the specification labels the foam roller as 285b and the ink tank as 285a while Fig. 1F labels the foam roller as 285a and the ink tank as 285b. Therefore, the foam roller and the ink tank are inconsistently labeled in the specification and the drawings. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the

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renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10 requires an ink tank and an inkpad. It is indefinite as to whether the foam roller contacts the ink from the ink tank or the inkpad. For the purpose of this examination, the claim will be interpreted to be inclusive of at least the foam roller contacting the ink of either the ink tank or the inkpad.

Claim 10 is also indefinite as to how the ink is applied onto the roller stamp. For the purpose of this examination, the claim will be interpreted to have the foam roller apply the ink onto the roller stamp, as suggested by Fig. 1G.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

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evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fasen et al. (U.S. Patent 6,765,276) in view of Sakurai (U.S. Patent 6,906,586) and Inganas et al. (WO 00/70406).

Fasen discloses a method of making an image sensor system (abstract). The image sensor system may comprise an active image sensing device structure 12, which can be a conventional CCD imaging device (col. 3, lines 45-47). CCD imaging devices can include a photoelectric converter (col. 1, lines 24-25). The image sensor system also comprises separated filter regions 84,86,88 corresponding to a different color pixel (col. 5, lines 19-24; Fig. 1). Fasen teaches that the color filter material can be solidified (i.e., a fixation process) after deposition (col. 1, lines 53-57)

Fasen does not teach the microstamping process as claimed (i.e., adhering ink from an inkpad to a stamp having raised a pattern and transferring the patterned ink to a predetermined region of the substrate).

Sakurai teaches that cell size reduction of a photoelectric conversion element is strenuously being made using a micropatterning process to achieve higher resolution (col. 1, lines 16-20).

Inganas teaches a micropatterning process, wherein a stamp having a raised pattern may be used for deposition (pg. 10, line 32-pg. 11, line 8). The patterned stamp can be dipped into the deposition material by dip coating (i.e., dipping stamp into an inkpad containing an ink) (Examples 3 and 6). Inganas teaches that such a deposition method can be used to pattern polymer type films (pg. 6, lines 1-5). Fasen teaches that the pixel color filters can be formed of a polymer material (col. 5, lines 16-29).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to have deposited the color filter polymers in the photoelectric device of Fasen using the microstamping method of Inganas because Sakurai teaches that reducing the cell sizes by a micropatterning process can increase the resolution in photoelectric elements.

Fasen teaches that the color filter material can be solidified (i.e., a fixation process) after deposition (col. 1, lines 53-57)

10. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fasen '276 in view of Sakurai '586 and Inganas '406 as applied to claim 1, and further in view of Kim et al. (U.S. Publication 2002/0066978).

Fasen, Sakurai, and Inganas are discussed above, but do not explicitly teach that the stamp can be a roller stamp. However, the Examiner takes Official Notice that it is well known to use a roller stamp in the art of microstamping (see, e.g., Kim, [0125] and Fig. 12). The selection of something based on its known suitability for its intended use has been held to support a prima facie case of obviousness. *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to have used a roller stamp as the particular stamp of Inganas with a reasonable expectation of success because it is well known in the art of microstamping to use a roller stamp.

11. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fasen '276 in view of Sakurai '586, Inganas '406, and Kim '978 as applied to claim 8, and further in view of Lee et al. (U.S. Publication 2002/0100566) and Aoki et al. (U.S. Publication 2002/0039496).

Fasen, Sakurai, Inganas, and Kim are discussed above, but do not explicitly teach that a foam roller is partially contacted with the ink.

Lee teaches that the addition of a transfer roll can provide a more uniform coating to the substrate ([0093], Fig. 6). Aoki teaches that a foam roller can be used to transfer ink to another roller ([0155], Fig. 31). The ink would necessarily spread onto the foam roller by capillarity due to the porosity of foam type materials. The selection of something based on its known suitability for its intended use has been held to support a prima facie case of obviousness. *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to have used a foam roller to apply the ink onto the roller stamp of Inganas and Kim in order to have formed a more uniform coating on the substrate. One would have been motivated to use foam as the particular

material for the second roller because Aoki teaches that a foam roller is suitable for transferring ink from one roller to another.

12. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fasen '276 in view of Sakurai '586 and Inganas '406 as applied to claim 1, and further in view of Pelrine et al. (U.S. Publication 2002/0106314).

Fasen, Sakurai, and Inganas are discussed above, but do not explicitly teach that the stamp is moved from the inkpad to the substrate.

Pelrine teaches that a stamp in a microstamping process can be first dipped into an inkpad and then transported to the substrate to deposit the ink [0183]. The selection of something based on its known suitability for its intended use has been held to support a prima facie case of obviousness. *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to have moved the stamp from the stamp of Fasen from an inkpad to the substrate with a reasonable expectation of success because Pelrine teaches that moving the stamp relative to the inkpad and substrate is suitable in the art of microprinting.

13. Claims 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fasen '276 in view of Sakurai '586 and Inganas '406 as applied to claim 1, and further in view of Law et al. (U.S. Publication 2004/0058067).

Fasen, Sakurai, and Inganas are discussed above, but do not explicitly teach that the stamp is moved from the inkpad to the substrate or that the inkpad and substrate are connected to each other.

Law teaches a method of microstamping (abstract). A system 1000 is used, wherein the system includes an inkpad 1004, substrates 1012,1014,1016, and a stamp 1008 ([0082]-[0083]; Fig. 10). The substrates and the inkpad are connected through the base 120 (Fig. 1). The stamp is attached to a robotic arm that it can move freely over the substrate and the inkpad [0024]. The selection of something based on its known suitability for its intended use has been held to support a prima facie case of obviousness. *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945). Therefore, it would have been obvious to one of ordinary skill

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in the art at the time of invention to have used the microstamping apparatus of Law in the microstamping process of Inganas with a reasonable expectation of success because Law teaches that such an apparatus is suitable in the art for use in microstamping.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy Lin whose telephone number is 571-272-8902. The examiner can normally be reached on Monday thru Friday 8AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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KEITH HENDRICKS
PRIMARY EXAMINER